



Four Interesting Facts About the Brain:

Neurological benefits that come from physical activity:

These are:

- Decreased **stress**
- Decreased social anxiety
- Improved processing of emotions
- Prevention of neurological conditions
- Euphoria (short-term)
- Increased energy, focus and **attention**
- Hinderance to the **aging process**
- Improved memory
- Improved blood circulation
- Decreased 'brain fog'

All of these benefits are connected to neurogenesis (the generation and creation of new neurons) and **neuroplasticity** (synaptic plasticity, or alterations to the strength of already existing synapses).

Many of these benefits are derived from the ability to reduce insulin resistance and inflammation (Godman, 2014).

There are a lot of myths surrounding how our brains work, as well as a lot of pending research. Some interesting facts:

4 Interesting Facts about the Brain:

The following list debunks common misconceptions about the brain and the role of exercise. As one of the least understood organs of the body, this three-pound mystery has kept scientists busy.

Fact No. 1: Brain Degeneration is a Myth

For a long time, scientists thought that cognitive aptitudes like our wits and memory—also known as fluid intelligence—peak around twenty years of age, then slowly decline.

Recent research conducted by MIT neuroscientists (Trafton, 2015) has found that it is more complicated than that.

It is not that our cognitive processes get better or worse over time, it is that they alter. This means that at different ages, we are more apt at certain things than at others.

It has been shown that:

- Information processing peaks around the age of 18 and 19
- Short-term memory peaks around 25 and declines around 35
- Visual short-term memory peaks in the early 30s
- The ability to read another person's emotion peaks around the 40s and 50s
- Vocabulary peaks in the late 60s or early 70s

Fact No. 2: Exercise Increases the Size of Your Brain

Exercising enlarges the areas of the brain associated with memory, task management, coordination, planning and inhibition (the anterior cingulate cortex and the supplementary motor area).

This enlargement means that the developed parts of the brain function faster and more efficiently. When you exercise, oxygen flow to these parts of the brain is very helpful.

In a 'new age of obesity' (Monbiot, 2018), more studies are also covering the impact of exercise on the brain as well as overall health (Ravey, 2015). The stigma of obesity is a complicated topic, but relevant to this exploration of exercise and access to healthy lifestyles.

For now, suffice to say that exercise increases the size of the brain and reduces the rates of obesity.

Fact No. 3: Anxiety Damages the Brain

Anxiety is harmful to the brain, but how? Evidence exists that individuals who experience anxiety are 48% more likely to develop dementia.

This is due to cortisol, the stress hormone, which damages parts of the brain involved in memory and complex thinking.

Working towards minimizing your stress, or viewing certain stress as positive, can benefit your brain health. An article I wrote on eustress explains more how your beliefs about stress affect whether it will be harmful or beneficial.

If you suffer from high stress or anxiety over the very idea of stress, there is still hope for you. Exercise may need a shifting role in your life.

Fact No. 4: Working for Too Long is Counterproductive

Every 1.5 to 2 hours, the brain goes through stages of performance and productivity. In the first stage, cognition can work at a remarkable pace, thanks to the release of sodium and potassium ions that regenerate the brain's electrical signals.

If a person continues to work on the same task, it is likely that they will experience decreased focus low productivity. This is because to continue working at the same pace, the brain needs new ions to 'refuel,' similar to how a long-distance athlete needs fuel between workouts.

Taking a short break of twenty minutes every 1-2 hours, whether the break is a walk, exercise or socializing, can stimulate the brain and return it to the first stage of optimal productivity

Workplaces are becoming more fit places where all employees have alternatives to sitting all day" (Carroll, 2018).

Short, frequent, and active breaks provide the neurological benefits that come from physical activity.